DLNR - DIVISION OF AQUATIC RESOURCES

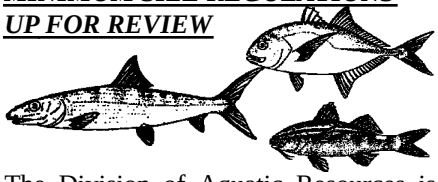
FREE!

CURRENT LINE

DAR STATEWIDE PROJECT INFORMATION NEWSLETTER VOLUME 5, NUMBER 2, August 2001

LICENSES, RULES & REGULATIONS

MINIMUM SIZE REGULATIONS UP FOR REVIEW



The Division of Aquatic Resources is proposing to increase the minimum sizes for a number of regulated marine fishes and invertebrates in order to help nearshore fish populations to sustain themselves and possibly begin recovery efforts. Some of the species up for review are as follows:

Fish	*Existing Minimum Size (Tatal Length)*	***Recommended Minimum Size (Fork Length)***
Mullet (‘Ama’ama)	7 inches	12 inches
Kala (all species)	9 inches	14 inches
Kumu, Moana kea, Weke ula	7 inches	11 inches
Moi	7 inches	11 inches
‘Oio	9 inches	14 inches
Sleeping uhu	1 lb. (= 10 to 11 inches)	8 inches
Uhu (all other species	1 lb. (= 10 to 11 inches)	12 inches
Ulua/papio (all species)	7 inches home consumption; 1 lb speared for sale	12 inches; no sale <16 inches

The recommended minimum size is based on what is called the “L_{50}” which is defined as “the length at which 50% of a given species are reproductively mature”.

If you are interested in further discussing the proposed minimum size changes, you are welcome and invited to attend any of the following public meetings on this subject that will be held Statewide in August according to the following schedule and locations:

Meeting Locations:

Island	*Date*	*Location*	*Time*
Lanai	Aug. 2	Lanai Public and School Library	5:30 pm
Molokai	Aug. 7	Mitchell Pauole Center, Kaunakakai	12 noon
Maui	Aug. 9	Lihikai Elementary School Cafeteria	6:00 pm
Big Island	Aug 14	**South Kona:** Konawaena Elementary School Cafeteria	5:30 pm
Big Island	Aug 15	**Kamuela:** Thelma Parker Library	5:30 pm
Big Island	Aug 16	**Hilo:** Hilo High School Cafeteria	5:30 pm
Oahu	Aug 21	**Waianae:** Waianae Public Library	5:30 pm
Oahu	Aug 23	**Honolulu:** Stevenson Middle School Cafeteria	5:30 pm
Oahu	Aug 28	**Kaneohe:** He’eia State Park	5:30 pm
Kauai	Aug 30	Wilcox Elementary School Cafeteria	5:30 pm

NEW KONA OFFICE

DAR has opened a new office in Kona. Commercial Fishing Licenses may now be purchased in Kona at the following location:

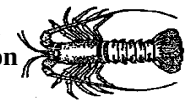
Division of Aquatic Resources
Honokohau Marina
74-381 Kealakehe Parkway, Suite L
Kailua-Kona, HI 96740

Phone: (808)327-6226
FAX: (808)327-6229

REMINDERS

Halalu (juvenile akule) Season
Halalu schools start to come inshore during July. It is **unlawful to take akule under 8-1/2 inches with net during July through October**. Any akule under 8-1/2 inches in total length is considered a halalu or juvenile akule. This regulation was established in 1968 to protect the young akule (halalu) during the peak of their recruitment into the fishery. During the rest of the year (November through June) halalu may be taken by nets with a minimum mesh size of 1-1/2 inches. Adult akule (measuring 8-1/2 inches or more in total length) may be taken all year round by nets with a minimum mesh size of 1-1/2 inches.

Oama (juvenile white weke) Season
Oama schools usually come inshore around this time.There is a **bag limit of 50 oama per person** per day. Oama are juvenile white weke that are under 7 inches in total length.



Spiny Lobster Season
Slipper Lobster Season
& Kona Crab Season
will be closed between **May 1st thru August 31st**. These animals spawn dur-

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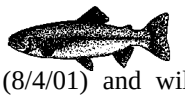
ing this time, so let's give them a chance to breed and multiply.

Moi & Moi-li`i Season will be closed between **June 1st and August 31st**. These animals spawn during the summer months so let's give them a break to help us increase their numbers.

2001 Trout Season begins on the first Saturday of August (8/4/01) and will continue for 16 consective days (till 8/19/01) and will open only on weekends and holidays thereafter till the end of September (9/30/01). The bag limit is 7 fish per person per day and a freshwater fishing license is required in order to fish for trout. Freshwater fishing licenses may be purchased through our offices and various fishing supply stores on Oahu or Kauai and you can now purchase a freshwater fishing license through the DLNR Website at http://www.state.hi.us/dlnr



INSHORE PROJECTS

ULUA TAGGING PROJECT UPDATE

Now being the middle of ulua season, we are hopeful for some tag recoveries as well as increasing our numbers of tagged fish. The following is a general summary of some tagging project data highlights as of 6/22/01:

Tagged and Released Fish

Species	*Number of Fish Tagged*	*Size Ranges of Fish Tagged (inches in fork length)*	*Number of Recoveries*
Kahala	734	8 to 52	39
White Ulua/Papio	33	8 to 47	5
Omilu	252	6to 28.5	30
Butaguchi	25	20 to 36.5	-
Papa	5	10.5 to 26.5	-
Gungkan (black ulua)	1	28	-
Kagami	1	32	-
Menpachi (Bigeye)	4	6.5 to 6.75	-
No-Bite	1	7.75	-
Paopao	1	21	-
TOTAL FISH TAGGED	**= 1057**	**TOTAL FISH RECOVERED**	**= 74**

Top Ten Taggers

Name	*Number of Fish Tagged*
Jeffrey E. Rogers *	432
Silas Naig *	131
Ho'ohena Furushima	116
Paul Murakawa	62
William Strickland *	55
Dale Leverone *	35
Guy Ohara *	38
Ed Timoney *	26
Gary Dill *	21
Michael Horii	15

**denotes commercial or charter captain*

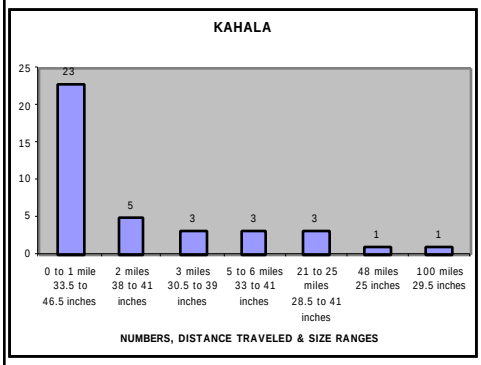
Number of Participants

Individual Fishermen	*Fishing Clubs*	*Charter/ Commercial Vessels*
107	3	12

Recoveries

The following is just some of the key facts taken from the data we've received so far. As of 6/22/01, we have about 74 recoveries thus far. Fishes recovered include 39 kahala, 33 omilu, and 6 white papio/ulua. Out of these 74 recoveries, 45 were recovered and re-released again and 3 were recovered and re-released twice.

Kahala

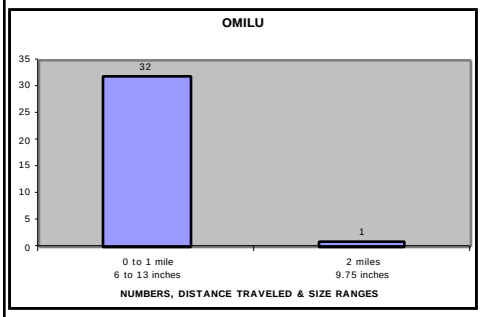


All recovered individuals of Kahala were tagged and released on the Big Island. Days of freedom ranged from 7 to 373 days averaging 100 days between the time a kahala is first caught (tagged) till the time it is recaptured.

These fish ranged in size from 29 to 47 inches in fork length indicating that these are all adult fish. Out of 39 recovered kahala, 11 fish exhibited a growth rate of 0.5 to 1 inches, one grew 3 inches while the rest (27) exhibited no growth even though some of them had over 300 days of freedom.

Since the kahala is no longer offered for sale commercially due to incidences of ciguatera, resident stocks may consist of an increasing amount of adult fish. If they are reproducing, the juveniles have to go somewhere. Only recently have we been hearing about reports of juvenile kahala being caught nearshore, one which was caught and tagged at 8 inches.

Omilu



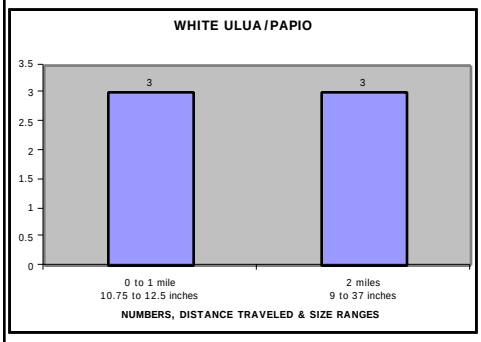
32 recovered individuals of Omilu were tagged and released on Oahu and 1 was tagged and released on the Big Island. Days of freedom ranged from 3 to 175 days averaging 46 days between the time the omilu is first caught (tagged) till the time it is recaptured.

These fish ranged in size from 6 to 13 inches in fork length indicating they were mostly juvenile fish. Out of 33 recovered omilu, 20 fish exhibited growths ranging from 0.5 inches to 2.75 inches in length over a period of time between 19 to 175 days of freedom. The other 13 omilu exhibited no growth. It is of interest to note that growth does not appear to be constant as we've always assumed. Short term recoveries (30 days of freedom or less) show that some fish can grow an inch in one month while others show no growth at all. These growth spurts may be related to food availability where growth would occur when the fish finds an abundant source of food.

As for movement patterns, only 1 omilu out of 33 showed any movement greater than 1 mile. This fish traveled 2.5 miles from Sand Island to Point Panic on Oahu and grew in length from 9 to 9.5 inches within 25 days. The majority of the recovered omilu remained within the same area they were originally tagged. Since most of them are still juveniles, we have the opportunity to find out at what

point (what size) they leave these areas to start foraging for food as adults. Only time will tell.

White Ulua/Papio



5 white papio were tagged and released on Oahu and 1 white ulua was tagged and released on the Big Island. Days of freedom ranged from 30 to 170 days averaging 80 days between the time a white ulua/papio is first caught and tagged till the time it was recaptured again.

These fish ranged in size from 9 to 37 inches in fork length. All of these fish, except for one, were considered juvenile fish. All of these fish exhibited some growth in length ranging from 1 to 2 inches. As with the omilu, growth also seems to be occurring in spurts, again, maybe relating to food availability.

3 out of 6 fish showed movement patterns of about 2 miles. The white ulua/papio apparently are more wide ranging in habits than the omilu. Perhaps they need a wider range of food items which forces them to forage within a broader habitat range.

Tagging Tips

Releasing strong healthy fish is a key factor to any tagging program. The following are a few tips to help insure that each fish has an increaed chance of surviving all tag and release efforts:

1) ***Fishing***

a) Landing a fish as quickly as possible is recommended for catch and release. Playing a fish too long can exhaust a fish to the point where it may not recover. Lactic acid build-up can be fatal to fish, especially during a long fight.

b) Always gently handle fish after it is landed. **Keep fingers out of the gills and never squeeze small fish.** Avoid damaging the skin and eyes and removal of the fish's slime coating as much as possible. A small mesh landing net can be helpful when handling a fish. When measuring and tagging fish, it is advisable to place the fish on a cool, damp, soft surface. for example, a large fish could be placed on a foam amt or boogie board while tagging.

c) **The use of circle hooks ("ulua hooks") is highly recommended** for fish that are to be released. Studies have shown that 95% of fish hooked with circle hooks were either hooked in the corner of the mouth or in the jaw. Tests also indicate that hook up rates were much higher with circle hooks than traditional hooks, as fish tend to hook themselves.

d) **Barbless hooks** are also recommended for catch and release, especially on lures or where circle hooks are not practical. Regular hooks can be easily converted to barbless hooks by pinching down the barb with a a plier.

e) Studies have strongly suggested that **removing hooks from deeply hooked fish is not a good idea**. This may tear vital organs increasing the chance of mortality. Cutting the line or leader is the best alternative.

2) ***Tagging***

a) It is advisable to practice tagging on a dead fish before attempting to tag a live one. It is important to feel the "click" as the applicator penetrates between the axial bones beneath the dorsal fin. Always pick a spot high on the back near the dorsal fin to avoid the back bone or spine.

b) Keep tagging applicator clear, sanitized and sharp. This will minimize passage of infection from one fish to another. Clogged applicators can be cleared with a piece of wire and rinsed in a solution of 10% bleach used as a disinfectant to keep the tool clean.

3) ***Releasing***

a) Release only strong healthy fish. A freely bleeding fish should be kept for home use.

b) **Revive a fish if it appears to be weak or stunned after a hard fight.** Hold the fish upright in the water, then move it back and forth so that water runs over its gills. Once it recovers and begins to swim, gently release the fish.

c) Sometimes fish that are brought to the surface from deeper waters have distended stomachs which need to be vented. Changes in water pressure can cause the swim bladder to burst and allow gases to escape into the fish's body cavity. **Venting releases these gases from the body cavity eliminating pressure on vital organs.** To vent fish, insert the applicator at a 45 degree angle at the base of the pectoral fin. Only insert the tool deep enough to release the gases. Escaping gas is usually audible and deflation of the stomach area noticeable. Once deflated, revive and release the fish.

d) **Re-releasing fish.** Many of our volunteer taggers who have recovered a tagged fish have chosen to re-release the fish to gather more information. This is most valuable because this allows us to actually follow that fish and find out where it's going and what it's doing during set time periods.

Always have a strategy for tagging and releasing a fish before landing it. A routine needs to be established that follows the protocol of Measure, Tag & Release. This will save time and help reduce trauma by minimizing the amount of time a fish spends out of the water. A fish out of water for more than 4 minutes could suffer brain damage due to lack of oxygen.

If you have any questions or would like to participate as a volunteer fisherman in DAR's Ulua Tagging Project, please contact Annette Tagawa or Clay Tam on Oahu at (808) 587-0593. You can also email us at:

uluatagging@exec.state.hi.us

Again, **MAHALO** for all of your tagging and recovery efforts! This project would not be possible without our volunteer fishermen - you guys are THE BEST!!! Keep up the good work, everyone and keep that data coming in!

FISH FACTS

Caranx sexfasciatus
(Menpachi Ulua, Pake Ulua,
Bigeye Trevally, Sasa)

SIZES
Length: up to 33 inches or more in length. Maximum length recorded at around 47 inches.
Weight: up to about 15 pounds. Maximum known weight is about 40 pounds.

BREEDING
Sexual Maturity: Fish can become sexually mature starting at 18.5 inches total length
Spawning: unknown

LIFESTYLE
Habitat: Inhabits coastal and oceanic waters associated with reefs. Young papio are sometimes found in brackish water areas. Fish may form in dense schools during the day while dispersing at night to feed.
Diet: Feeds mainly on fish and crustaceans
Life Span: unknown
Distribution: from Hawaii southward into central Polynesia, westward through Micronesia and Melanesia, through the East Indies, and across the Indian Ocean to the coast of Africa.

RELATED SPECIES
The menpachi ulua is a member of the Jack Fish Family which includes all species of ulua and papio as well as other fishes such as omaka, opelu, akule, lae and rainbow runner. Large individuals are usually found in offshore areas while juveniles are found in nearshore areas and sometimes near tide pools and brackish-water.

As with any other species of ulua, the menpachi ulua contributes its fair share to sport fishing in Hawaii. The current record for menpachi ulua in Hawaii is 15 lbs. 8.8 oz.. Menpachi ulua or bigeye trevally are aptly named due to ntheir relatively large eyes.

The following table will give you an idea of how fast these fish grow and how old they are. Please note that these are just ball park figures and meant only to give you a general idea on the relationship of length, & weight.

Length, Weight and Age of Menpachi Ulua

Total Length (inches)	Weight (pounds)	Age (years)
4	0.06	unknown
8	0.5	"
10	0.8	"
12	1.4	"
14	2.2	"
16	3	"
18	4.5	"
20	6	"
21	7	"
23	10	"
25	12	"
28	16	"
30	20	"
33	27	"
36	33	"